

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

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Distributed Generation NOI

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D.T.E. 02-38

REPLY COMMENTS OF THE  
SOLAR ENERGY BUSINESS ASSOCIATION OF NEW ENGLAND

**I. Introduction**

The Solar Energy Business Association of New England (“SEBANE”) is pleased to present the following Reply Comments in connection with the Request for Comments issued by the Department of Telecommunications and Energy (“Department”) as part of its Notice of Inquiry into distributed generation. Distributed Generation NOI, D.T.E. 01-38 (June 13, 2002).

**II. Clean, Renewable Distributed Generation Should be Treated Differently from Other Types of Distributed Generation.**

As several other commenters pointed out, renewable distributed generation technologies differ significantly from other forms of distributed generation. Renewable technologies differ in size (typically smaller), in environmental performance (cleaner), and in technical features (typically safer).<sup>1</sup> See, e.g., Comments of the Massachusetts Department of Environmental Protection (August 1, 2002); Letter from Jerrold

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<sup>1</sup> For example, as NSTAR pointed out in its comments, photovoltaic systems require an inverter in order to be connected to the distribution system. “Generally, inverters have the protective functionality to disconnect in response to contingencies on the distribution system, such as a short circuit. In addition, any generation technology that requires the use of an inverter is generally not self-sustaining, and therefore,

Oppenheim and Charles Harak on behalf of the Massachusetts Community Action Program Directors Association, Inc., at 2-3 (July 23, 2002); Comments of the Massachusetts Technology Collaborative Renewable Energy Trust (“MTC Comments”), at 10-11, 13-14 (August 1, 2002); and Comments of NSTAR Electric in Response to the Notice of Inquiry regarding Distributed Generation, at 5-10 (August 2002).

As a result, renewable distributed generation should be addressed separately from other forms of distributed generation that might need much more detailed review because of their size, environmental impacts, or technical features. Such an approach would be consistent with rules established in California, New York and other jurisdictions. It would also be consistent with the Massachusetts Electric Restructuring Act’s support for the development of alternative sources of clean electricity while simultaneously supporting the MA economy by creating jobs and industry.

**III. The Department should Establish a Distributed Generation Collaborative as Recommended by the Massachusetts Technology Collaborative.**

In its Initial Comments, the Massachusetts Technology Collaborative (“MTC”) recommended that the Department establish a collaborative process to address distributed generation issues, and offered to provide financial support for facilitation and to sponsor research and analysis. MTC Comments at 22.

The Department should accept both the MTC’s recommendation and its offer of support. The many technical issues at stake in this proceeding are very well suited to resolution through a collaborative process. An MTC-supported collaborative would have great value for both the Department and the parties.

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interconnection with the electric system in more straightforward.” Comments of NSTAR Electric in

In order to maximize the efficiency of the collaborative, SEBANE recommends that it be structured as follows:

- Interconnection issues, which are primarily safety and reliability related, should be fast tracked. The ongoing utility efforts to develop common interconnection standards (see, e.g., Comments of Massachusetts Electric Company at 5-6) should be incorporated into the MTC-supported collaborative. (See further discussion below.)
- Distribution system planning issues should be addressed in two phases. In phase 1, the utilities should develop cost and other information regarding specific areas that are in need of distribution system investment. In phase 2, the collaborative should use the information developed in phase 1 to develop several pilot programs to test the use of distributed generation to avoid or defer distribution system investment.
- Economic issues such as standby rates and net metering should be addressed starting immediately on their own, while the technical issues (interconnection) and research (distribution planning) are pursued in sub-groups. Resolution of the economic issues should not delay resolution of the other issues.
- Finally, each aspect of the collaborative should have clear deliverables and deadlines to avoid delays and create pressure for timely results.

#### **IV. The Need for Statewide Uniform Technical Interconnection Standards.**

The initial comments indicate a general consensus for developing statewide uniform technical interconnection standards. Indeed, the utilities indicated that they have already undertaken an effort to develop joint standards. For small systems (under 10 kW), these standards will be completed by October 1, 2002. For large systems, they will be completed by the end of 2002. See, e.g., Comments of Massachusetts Electric Company (“MassElectric Comments”) at 5-6. Most of the technical issues associated with interconnection have and continue to be addressed through engineering tests and standards set forth by nationally recognized laboratories and engineering associations such as IEEE, UL and ANSI.

Therefore, SEBANE supports the utility process already under way, and we urge the utilities to expedite a timeline for results and publish draft technical standards for all sized distributed generation by November 1, 2002.<sup>2</sup> At this point, the utilities’ draft document should be addressed by the MTC-supported collaborative, with a goal of completing a final document by the end of the year, and submitting it to the Department as a joint filing. The filing on interconnection issues could be completed separately from, and likely prior to, any joint collaborative filings on economic or distribution planning issues.

SEBANE also strongly supports the concept of using the existing Massachusetts Electric technical standards (M.D.T.E. No. 1052) as the basis for statewide technical standards, with possible inclusion of additional ideas drawn from the experiences of California, Texas, New York, and New Jersey.

## **V. Massachusetts RPS Compliant Renewables should be Exempt from Standby Charges.**

In their initial comments, the utilities have requested that the Department change its existing policy and allow the utilities to impose standby charges on customers with on-site generation. See, e.g., MassElectric Comments at 8-20. The arguments that the utilities have offered in support of this proposed change in policy are based on two characteristics of on-site generation: large size and dispatchability. Given that neither of these characteristics is applicable to RPS-compliant renewable on-site generation, such generation should be exempt from standby charges.

**Size.** The concern about large, on-site generation is woven throughout the utilities' comments. The examples given to support their arguments feature units with size measured in megawatts. For example, Massachusetts Electric points out that [v]oltage swings from 5 MW of customer-owned generation turning on and off can be substantial." MassElectric Comments at 13. It is concern about large on-site systems that drives arguments about impact on other customers and unfair allocation of distribution costs.

However, on-site, RPS-compliant renewable generation is small, not large. These systems are measured in kilowatts, not megawatts. For example, the solar installation at the South Dartmouth BJ's is 15 kW; the Williams Building in Boston is 30 kW; and Beverly High School is 60 kW. In the Gardner Project, all the systems together total just 60 kW. The residential systems installed in the recent programs offered by Western Massachusetts Electric and Massachusetts Electric ranged from just 1 to 2.5 kW.

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<sup>2</sup> SEBANE volunteers to provide technical support to the utility working group by, e.g., providing technical review of draft documents.

**Dispatchability.** The second characteristic relied on by the utilities is dispatchability. Massachusetts Electric argues that restructuring has created new opportunities for customers that affect decisions about whether to operate on-site generation. These opportunities relate primarily to the ability to arbitrage on-site generation against the price of power in the spot market. The argument is that these opportunities lead to much greater variability in customer use of the distribution system, and that, therefore, standby charges are appropriate today even though the Department previously rejected them. MassElectric comments at 9.

Regardless of the merits of these arguments when applied to other forms of distributed generation, they do not apply to RPS-compliant renewables, and in particular do not apply to PV. PV systems generate when the sun shines. They cannot be dispatched to take advantage of spot market prices. As a result, restructuring has not changed the operation patterns of PV systems, and cannot be used to justify a change in Department policy regarding standby charges for those systems.

## **VI Distribution System Planning**

The initial comments demonstrated wide recognition that distributed generation can be beneficial in reducing distribution costs. However, the comments also demonstrated a difference of opinion on the extent of these benefits and on the ability to quantify them. SEBANE believes that the necessary first step to resolve this issue is a transparent analysis of the costs and potential benefits.

SEBANE proposes a two-step pilot program. The first step would be for the utilities to identify a limited number (3-5 cases) of the distribution system locations that will require significant distribution system investments. Each utility would submit a

study outlining the location, projected investment needed, cost of the investment, and profile of the load (or conversely load reduction) as the basis for consideration of the potential distributed generation investment benefit. Second, this information would then be used by the MTC-supported Collaborative to develop several pilot programs to test the use of distributed generation to avoid or delay distribution system investment. This approach is consistent with the Massachusetts Electric Brockton pilot program, but expanded as part of this overall docket.

## **VII. Conclusion**

SEBANE respectfully requests that the Department adopt the foregoing recommendations.

Respectfully submitted,

SOLAR ENERGY BUSINESS ASSOCIATION OF NEW ENGLAND

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Date: August 15, 2002